

Remarks

Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are respectfully requested. Claims 13-14, 16-19, 21-25 and 27-35 are pending.

In the Office Action dated February 25, 2002, applicants received an objection to the title. In response to this objection, applicants provide herein a new title. Applicants respectfully submit that the new title is clearly indicative of an aspect of the invention to which claims are directed.

Applicants gratefully acknowledge the indication of allowability of claims 16, 17, 21, 22, 27 and 28, if rewritten in independent form. With the above claim amendments, claims 13, 18, 23 and 24 have been rewritten to substantially capture the allowed subject matter of claims 16, 21 and 27. Thus, applicants respectfully request an indication of allowability for those claims.

Claims 29-35 have been added to claim a further aspect of applicants' invention. Support for the amendments can be found in the claims themselves and throughout the specification. Thus, no new matter has been added. A marked-up version of the amended specification and claims is provided on one or more pages separate from the amendment, in accordance with 37 C.F.R. 1.121. These pages are appended at the end of the Response.

In the Office Action dated February 25, 2002, claims 13-15, 18-20 and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Benayoun et al. (U.S. Patent No. 5,771,227). Applicants respectfully, but most strenuously, traverse this rejection to any extent deemed applicable to the amended or new claims for the reasons below.

In one aspect, applicants' invention is directed to processing messages within a dynamically changing network of processes. Although the network is dynamically changing, completion of problems (e.g., transactions) associated with the messages is able to be determined. This is true even though the number of messages to be processed for the transaction is dynamically changeable during processing.

As one particular example, applicants claim a method of processing transactions (e.g., claim 29). The method includes, for instance, dynamically changing a network of processes used in processing a plurality of messages of a transaction, the transaction having associated therewith a dynamic number of messages; and determining completion of the transaction, even though the network used in processing the plurality of messages of the transaction is dynamically changed. Thus, in applicants' claimed invention, the network used in processing messages of a transaction is dynamically changing. However, completion of that transaction is still determinable, even though the number of messages associated with that transaction is dynamic. That is, during processing of the transaction, the number of messages generated for the transaction may change, and thus, be indeterminate during processing. However, in accordance with an aspect of applicants' claimed invention, completion

of the transaction is still able to be determined. Applicants respectfully submit that aspects of applicants' claimed invention are very different from the teachings of Benayoun.

Benayoun is directed to the routing of messages in a multi-node data communication network. In particular, Benayoun describes a technique for routing messages through a network that is reconfigurable. However, Benayoun is not directed to the processing of transactions, as claimed in an aspect of applicants' invention. Benayoun does not have any notion of a transaction. That is, Benayoun does not know what, if anything, the messages are associated with. Benayoun just routes messages from one place to another with no regard as to their relationship with one another or with a transaction. Thus, Benayoun fails to describe, teach or suggest one or more elements of applicants' claimed invention.

For example, applicants claim dynamically changing a network of processes used in processing a plurality of messages of a transaction, in which the transaction has associated herewith a dynamic number of messages. As described above, Benayoun has no idea of a transaction. It simply takes a message and routes it from one place to another. Thus, there is no description, teaching or suggestion in Benayoun of dynamically changing a network of processes used in processing a plurality of messages of a transaction. Further, there is no description, teaching or suggestion in Benayoun of a transaction having associated therewith a dynamic number of messages. This is simply

missing. Thus, Benayoun does not anticipate applicants' claimed invention.

Additionally, as a further example, since Benayoun does not deal with transactions, there is no need in Benayoun to determine completion of the transaction. Again, Benayoun does not know which messages, if any, are related to a transaction. Thus, Benayoun does not need to know and does not determine when a transaction is complete. Therefore, applicants respectfully submit that Benayoun does not describe, teach or suggest applicants' claimed invention.

Based on the foregoing, applicants respectfully request an indication of allowability for all claims of this application. The dependent claims are allowable for the same reasons as the independent claims, as well as for their own additional features.

Should the Examiner wish to discuss this case with applicants' attorney, please contact applicants' attorney at the below listed number.

Respectfully submitted,

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Version with markings to show changes made

In the Specification:

The title has been amended, as follows:

[METHOD AND SYSTEM FOR PROCESSING MESSAGES IN A
DISTRIBUTED COMPUTING ENVIRONMENT]

DETERMINING COMPLETION OF TRANSACTIONS PROCESSING IN A
DYNAMICALLY CHANGING NETWORK

In the Claims:

Claims 15, 20 and 26 have been canceled.

New claims 29-35 have been added.

Claims 13-14, 16-19, 21-25 and 27-28, have been
amended, as follows:

13. (AMENDED) A method of dynamically changing
message flow, said method comprising:

[processing a plurality of messages within a
network of processes; and]

dynamically changing [the] a network of
processes, while one or more messages of [the] a
plurality of messages are being processed in the
network; and

determining completion of a problem associated with one or more messages of the plurality of messages, although said network has changed, said determining comprising checking a data structure to determine whether the problem is completed.

14. (AMENDED) The method of claim 13, wherein said dynamically changing the network comprises at least one of adding a process to the network, changing a process of the network and deleting a process from the network.

16. (AMENDED) The method of claim [15] 13, wherein said [determining comprises checking a] data structure [that] collects results associated with said problem [to determine whether the problem is completed].

17. (AMENDED) The method of claim [16] 13, wherein the data structure is extendable to accommodate changes in the network.

18. (AMENDED) A system of dynamically changing message flow, said system comprising:

[means for processing a plurality of messages within a network of processes; and]

means for dynamically changing [the] a network of processes, while one or more messages of [the] a plurality of messages are being processed in the network; and

means for determining completion of a problem associated with one or more messages of the plurality of messages, although said network has changed, said means for determining comprising means for checking a data structure to determine whether the problem is completed.

19. (AMENDED) The system of claim 18, wherein said means for dynamically changing the network comprises at least one of means for adding a process to the network, means for changing a process of the network, and means for deleting a process from the network.

21. (AMENDED) The system of claim [20] 18, wherein said [means for determining comprises means for checking a] data structure [that] collects results associated with said problem [to determine whether the problem is completed].

22. (AMENDED) The system of claim [21] 18, wherein the data structure is extendable to accommodate changes in the network.

23. (AMENDED) A system of dynamically changing message flow, said system comprising:

[a plurality of messages being processed within a network of processes; and]

a computing system adapted to dynamically change [the] a network of processes, while one or more messages of [the] a plurality of messages are being processed in the network; and

a data structure used in determining,
although the network has changed, completion of a
problem associated with one or more messages of
the plurality of messages.

24. (AMENDED) At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine to perform a method of dynamically changing message flow, said method comprising:

[processing a plurality of messages within a network of processes; and]

dynamically changing [the] a network of processes, while one or more messages of [the] a plurality of messages are being processed in the network; and

determining completion of a problem
associated with one or more messages of the
plurality of messages, although said network has
changed, said determining comprising checking a
data structure to determine whether the problem is
completed.

25. The at least one program storage device of claim 24, wherein said dynamically changing the network comprises at least one of adding a process to the network, changing a process of the network and deleting a process from the network.

27. (AMENDED) The at least one program storage device of claim [26] 24, wherein said [determining comprises checking a] data structure [that] collects results associated with said problem [to determine whether the problem is completed].

28. (AMENDED) The at least one program storage device of claim [27] 24, wherein the data structure is extendable to accommodate changes in the network.